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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,491	07/22/2003	Koji Kondo	723-1411	8017
27562	7590	11/17/2005		
NIXON & VANDERHYE, P.C. 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			EXAMINER WARREN, DAVID S	
			ART UNIT 2837	PAPER NUMBER

DATE MAILED: 11/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/623,491

Applicant(s)

KONDO ET AL.

Examiner

David S. Warren

Art Unit

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 7-11 and 14-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4, 7-11 and 14-20 is/are allowed.
- 6) ☒ Claim(s) 21-23, 25 and 26 is/are rejected.
- 7) ☒ Claim(s) 24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/24/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 21 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claim limitation drawn to "[a] medium which is detachably attached to a game machine..." has not been disclosed in the instant Application. Therefore, this limitation is deemed new matter. The Applicant is requested to remove the limitation from the claims or specifically show where in the specification the limitation is discussed.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Por Paul (6,297,438) in view of Wheaton (5,422,956). Regarding claim 21, the patent to Por Paul discloses the use of a tilt detector (38; fig. 3), a program storing area (col. 4, lines 51 – 54), a tilt calculating step (performed by elements 46 in figs. 4 and 5), a sound waveform reading step (memory for storing tones; col. 4, lines 34 – 36), and a sound waveform data processing step of changing a frequency of the sound waveform data read in accordance with the amount of tilt (see Por Paul's claims 1 and 3), and a means to output sound (60, 68; fig. 5). Por Paul does not disclose the use of a detachably attached medium having a storage, program processor, and sound outputting unit. Wheaton discloses the use of a tilt-activated detachably attached unit (10; fig. 1). It would have obvious to one of ordinary skill in the art to combine the teachings of Por Paul with those of Wheaton to obtain a hand held tilt-activated unit and a separate "machine" for providing sound output in accordance with detected tilt. The motivation for making this combination is to increase the processing power and/or capabilities without increase the size and/or weight of the hand held portion. Furthermore, the device taught by Por Paul (components within the hand held portion) appears to be functionally equivalent to placing components in either the hand held portion or the "machine" portion.

5. Claims 22, 23, 25, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Por Paul (discussed supra) in view of Nakada et al. (4,364,299). The teachings of Por Paul have been discussed above. Regarding claim 22, Por Paul further discloses the use of a portable game housing (16, fig. 4), tilt detector and

Art Unit: 2837

storage area (same as discussed above), receiving an output from the tilt detector (via 50 fig. 3), changing frequency in response to the output from the tilt detector (Por Paul changes "pitch" which is synonymous with frequency), and generating user performance data in response to tilt (i.e., sound is "performance data"; see element 60, 68). Por Paul does not disclose the use of storing reference play data, comparing reference play data and the user performance data, nor displaying information regarding the user's tilting of the housing based on the comparing. (Note: To obviate confusion, Nakada's "performance data" is synonymous with Applicant's "reference data" while Applicant's "performance data" is synonymous with Nakada's "key operations" and "key code signals.") Nakada et al. disclose the use of storing reference data (as "performance data" see first sentence of Abstract), comparing the reference (i.e., performance) result with the user performance data (i.e., the key operations) and displaying the information (see last sentence of the Abstract). It would have been obvious to one of ordinary skill in the art to combine the teachings of Por Paul and Nakada to obtain a tilt-detecting instrument wherein the performance of the user is compared to a reference. The motivation for making this combination is to assist in training a pupil to correctly operate the musical instrument of Por Paul. Regarding claim 23, Por Paul teaches that a separate (i.e., removed) device may be used to store data (col. 4, last sentence of the second paragraph). Regarding claim 25, Por Paul discloses the use of adding switches "arrayed in larger or fewer number about a greater or lesser circumference of arc." The Examiner maintains that a larger number of switches would provide an approximation to a "continuous" changing of the frequency. Furthermore, Por Paul

Art Unit: 2837

teaches that any instrument voice may be used and that “[a]ppropriate switching can be provided to allow the user to choose the voicing desired” (col. 4, lines 56 – 61). Since many instrument voices are “continuous” (e.g., a violin, trombone, etc.), one of ordinary skill would think to use “appropriate switching” to “allow a user to choose” a desired instrument.

6. Claims 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Por Paul in view of Nakada and in further view of Wheaton (5,422,956). Regarding claim 26, the teachings of Por Paul and Nakada have been discussed supra. Neither Por Paul nor Nakada disclose the use of a tilt-controlled amplitude (i.e., volume). Wheaton discloses the use of a tilt controllable volume (see Abstract). It would have been obvious to one of ordinary skill in the art to combine the teachings of Wheaton with those to Por Paul and Nakada to obtain a tilt controllable music instrument capable of having volume (i.e. amplitude) controlled by tilting the hand held device. The motivation for making this combination is to provide the user with a means to adjust volume while using the instrument.

Allowable Subject Matter

7. Claims 1 – 4, 7 – 11, and 14 – 20 are allowed.

8. Claim 24 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the

base claim and any intervening claims. The prior art does not disclose the use of changing the lyrics (or a syllable) of a song based on a detected tilt.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David S. Warren whose telephone number is 571-272-2076. The examiner can normally be reached on M-F, 9:30 A.M. to 6:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on 571-272-2800 ext 37. The fax phone

Art Unit: 2837

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

dsw



MARLON FLETCHER
PRIMARY EXAMINER